## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

Steven Andrew Poling et al.

Title:

COMPOUNDS FOR NOVEL PROTON CONDUCTING MEMBRANES AND METHODS OF

MAKING SAME

Docket No.:

900.186US1

Filed:

July 25, 2003

Examiner:

Unknown

Serial No.: 10/627584 Due Date: N/A

Group Art Unit: 1745

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

We are transmitting herewith the following attached items (as indicated with an "X"):

 $\underline{X}$  A return postcard.

X An Information Disclosure Statement (2 pgs.), Form 1449 (2 pgs.), and copies of 19 cited documents.

If not provided for in a separate paper filed herewith, Please consider this a PETITION FOR EXTENSION OF TIME for sufficient number of months to enter these papers and please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.

Customer Number 21186

Atty: Barbara J. Clark

Reg. No. 38,107

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this **2nd** day of March, 2004.

Name

Signature

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.

(GENERAL)

<u>S/N 10/627584</u> <u>PATENT</u>

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Steven Andrew Poling et al.

Examiner:

Unknown

Serial No.:

10/627584

Group Art Unit:

1745

Filed:

July 25, 2003

Docket:

COMPOUNDS FOR NOVEL PROTON CONDUCTING MEMBRANES AND

900.186US1

METHODS OF MAKING SAME

.

## INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

In compliance with the duty imposed by 37 C.F.R. § 1.56, and in accordance with 37 C.F.R. §§ 1.97 et. seq., the enclosed materials are brought to the attention of the Examiner for consideration in connection with the above-identified patent application. Applicants respectfully request that this Information Disclosure Statement be entered and the documents listed on the attached Form 1449 be considered by the Examiner and made of record. Pursuant to the provisions of MPEP 609, Applicants request that a copy of the 1449 form, initialed as being considered by the Examiner, be returned to the Applicants with the next official communication.

Pursuant to 37 C.F.R. §1.97(b), it is believed that no fee or statement is required with the Information Disclosure Statement. However, if an Office Action on the merits has been mailed, the Commissioner is hereby authorized to charge the required fees to Deposit Account No. 19-0743 in order to have this Information Disclosure Statement considered.

INFORMATION DISCLOSURE STATEMENT

Serial No :10/627584

Page 2 Dkt: 900.186US1

Filing Date: July 25, 2003

Title: COMPOUNDS FOR NOVEL PROTON CONDUCTING MEMBRANES AND METHODS OF MAKING SAME

The Examiner is invited to contact the Applicants' Representative at the below-listed telephone number if there are any questions regarding this communication.

Respectfully submitted,

STEVEN ANDREW POLING ET AL.

By their Representatives,

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A. P.O. Box 2938 Minneapolis, MN 55402 515-233-3865

Date MARCH 2,2004

Reg. No. 38,107

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this \_ **ZIME**y of March, 2004.

Signature

PTC/S8/084(10-01)
Approved for use through 10/31/2002, OMB 651-0031
US Patent & Tredemark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number. Substitute for form 1449A/PTO Complete if Known INFORMATION DISCLOSURE **Application Number** 10/627584 STATEMENT BY APPLICANT July 25, 2003 Filing Date (Use as many sheets a Poling, Steven **First Named Inventor Group Art Unit** 1745 Unknown **Examiner Name** Attorney Docket No: 900.186US1 Sheet 1 of 2

		US PA	ATENT DOCUMENT	S		
Examiner Initial *	USP Document Number	Publication Date	Name of Patentee or Applicant of cited Document	Class	Subclass	Filing Date If Appropriate
	US-4,439,411	03/27/1984	Manganaro, James L., et al.	423	560	01/22/1981

FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Foreign Document No	Publication Date	Name of Patentee or Applicant of cited Document	Class	Subclass	T²	

	OTHE	R DOCUMENTS NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
		ABE, YOSHIHIRO, et al., "Electrical conduction due to protons and alkali-metal	
		ions in oxide glasses", Physical Review B (Condensed Matter), 48(21),	
		(December 1, 1993),15621-5	
		ABE, YOSHIHIRO, et al., "Protonic conduction in alkaline earth metaphosphate	
		glasses containing water", <u>Journal of Non-Crystalline Solids, 51(3)</u> , (November	
		1982),357-65	
		ANGELL, C A., "Mobile lons in Amorphous Solids", Annual Review of Physical	
		<u>Chemistry, 43.</u> (October 1992),693-717	
		BLOMEN, L. ET AL., EDS., "Fuel Cell Systems", Copyright 1993, Plenum	
		Press, New York, ISBN 0-306-44158-6,(1993),xi-xix, 37-69	
		BOOLCHAND, P, et al., "Structure of GeS/sub 2/ glass: spectroscopic evidence	
		for broken chemical order", Physical Review B (Condensed Matter), 33(8), (April	
		15, 1986),5421-34	
		CHO, J, et al., "Infrared spectroscopy study of xRb/sub 2/S+(1-x)B/sub 2/S/sub	
		3/ glasses and polycrystals in the range 0", Physics and Chemistry of Glasses,	
		36(6), (December 1995),239-43	
		JULIEN, C., et al., "Solid State Batteries: Materials Design and Optimization",	
		Copyright 1994, Kluwer Academic Publishers, ISBN 0-7923-9460-7,(1994),v-viii,	
		97-175, 183-277	
		KAESAER, J A., "Hydrosulfides of Group I and Group II Metals", Inorganic	
		Chemistry 12, (1973),3019-3020	
		KAMITSOS, E I., et al., "Structure and optical conductivity of silver	
		thiogermanate glasses", <u>Journal of Solid State Chemistry</u> , 112(2), (October	
		1994),255-61	<u> </u>
		KARTHIKEYAN, A, et al., "New method to prepare polycrystalline meta-thioboric acid, (HBS2)3.", Inorganic Chemistry 41, (2001),622-624	
		KAWAMOTO, YOJI, et al., "Infrared and Raman spectroscopic studies on short-	
		range structure of vitreous GeS/sub 2/", Materials Research Bulletin, 17(12),	
		(December 1982),1511-16	
		KINCS, J, et al., "Non-Arrhenius conductivity in glass: mobility and conductivity	
		saturation effects", Physical Review Letters, 76(1), (January 1, 1996),70-3	

**EXAMINER** 

**DATE CONSIDERED** 

PTO/SB08A(10-01)
Approved for use through 10/31/2002. OMB 651-0031
US Patent & Trademark Office: U.S. DEPARTMENT OF COMMERCE
Beclion of information unless is contains a valid OMB control number.

Substitute for form 1449A/PTO	Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number Complete if Known		
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Application Number	10/627584	
(Use as many sheets as necessary)	Filing Date	July 25, 2003	
	First Named Inventor	Poling, Steven	
	Group Art Unit	1745	
	Examiner Name	Unknown	
Sheet 2 of 2	Attorney Docket No: 900.186US1		

	OTHER	R DOCUMENTS NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number publisher, city and/or country where published.	
		MARTIN, S W., et al., "DC and AC conductivity in wide composition range Li/sub 2/O-P/sub 2/O/sub 5/ glasses", <u>Journal of Non-Crystalline Solids</u> , 83(1-2), (June 11, 1986),185-207	
		MARTIN, S W., et al., "Ionic conduction in phosphate glasses", <u>Journal of the American Ceramic Society</u> , 74(8), (August 1, 1991),1767-83	
		MARTIN, S W., et al., "Preparation of high-purity vitreous B/sub 2/S/sub 3/", Journal of the American Ceramic Society, 73(11), (November 1990),3481-5	
		PPG INDUSTRIES, "Sodium Hydrosulfide", http://www.ppg.com/chm_chloralk/Bulletins/SodiumHydrosulf.pdf, (July 2002),	
		THOMAS, SHARON, et al., "Fuel Cells: Green Power", Los Alamos National Laboratory, U.S. Department of Energy, Publication number, LA-UR-99-3231,(1999),1-36	
		WILLARD, H H., et al., "The preparation and properties of potassium thiogermante and thiogermanic acid", <u>Journal of the American Chemical Society</u> 65, (1943),1887-1889	

EXAMINER DATE CONSIDERED